STREAM INVENTORY REPORT

Wild Hog Creek

WATERSHED OVERVIEW

Refer to the map of McKenzie Creek for the location of Wild Hog Creek.

Wild Hog Creek is tributary to Carson Creek, a tributary to McKenzie Creek, a tributary to Sproule Creek, a tributary to South Fork Gualala River, located in Sonoma County, California. Wild Hog Creek's legal description at the confluence with Carson Creek is T08N R12W S05. Its location is 38E34N6.9O north latitude and 123E11N53.2O west longitude. Wild Hog Creek is an intermittent stream according to the USGS Fort Ross 7.5 minute quadrangle.

HABITAT INVENTORY RESULTS AND DISCUSSION

Adrianne Carr and Randy Turner (WSP/AmeriCorps) conducted the habitat inventory of August 18, 1999. The total length of the stream surveyed was 2493 feet.

The air temperatures recorded on the survey day ranged from 62 to 73 degrees Fahrenheit Water temperatures ranged from 58 to 69 degrees Fahrenheit. This is an unsuitable water temperature range for salmonids. For rearing purposes, coho salmon tend to prefer water temperatures that range from 48 and 60 degrees Fahrenheit. Steelhead trout have a wider range of suitable temperatures, but still have the upper value at 65 degrees Fahrenheit.

Based on the total length of this survey, Level II habitat units consisted of 43% flatwater units, 32% dry units, and 15% pool units, 9% riffle units, and 1% culvert units (Table 1). The pools are relatively shallow, with only 2 of the 21 pools having a maximum depth greater than 2 feet (i.e. only 10% are primary pools) (Table 4). DFG data indicate that the better coastal coho streams have as much as 40% of their total habitat length in primary pools. Pool enhancement should be considered when primary pools comprise less than that percentage.

The mean shelter ratings for pool, riffle, and flatwater habitats were all low (1, 3, and 9, respectively), compared to the desirable rating of approximately 100 (Table 1). Boulders and bedrock ledges provide the only shelter in these habitats (Table 10). Log and root wad cover structures in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat.

All three of the low gradient riffles fully measured had gravel as the dominant substrate, which is generally considered suitable for spawning salmonids. Of the three mid-channel pools, one was dominated by silt/clay, one by sand, and one by gravel. Of the other habitat units fully measured, gravel was most common as the dominant substrate (four units), followed by bedrock (two units), and sand (one unit) (Table 6).

The mean percent canopy density for the stream was 73%, putting canopy revegetation at a relatively low priority since 80% is generally considered optimum in north coast streams (Table 7).

The percentage of right and left bank covered with vegetation was moderate at 63% and 65%, respectively (Table 7).

No fish were observed upstream of unit 2, nine feet above the confluence with Carson Creek.

RECOMMENDATIONS

1) Wild Hog Creek should be managed as an anadromous, natural production stream.

2) The limited water temperature available suggest that the maximum temperatures are within/above the acceptable range for juvenile salmonids. To establish more complete and meaningful temperature regime information, 24-hour monitoring during the July and August temperature extreme period should be performed for 3 to 5 years.

3) Where feasible, design and engineer pool enhancement structures to increase the number of pools. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion.

4) Increase woody cover in the pools and flatwater habitat units. Most of the existing cover is from boulders. Adding high quality complexity with woody cover is desirable and in some areas the material is at hand.

5) Inventory and map sources of stream bank erosion and prioritize them according to present and potential sediment yield. Identified sites, like the site at 6---', should then be treated to reduce the amount of fine sediments entering the stream.

6) Active and potential sediment sources related to the road system need to be identified, mapped, and treated according to their potential for sediment yield to the stream and its tributaries.

7) Increase the canopy on Wild Hog Creek by planting willow, alder, redwood, and Douglas fir along the stream where shade canopy is not at acceptable levels. The reaches above this survey section should be inventoried and treated as well, since the water flowing here is effected from upstream. In many cases, planting will need to be coordinated to follow bank stabilization or upslope erosion control projects.

8) Spawning gravel on Wild Hog Creek are limited to relatively few reaches. Crowding and/or superimposition of redds have been observed during winter surveys. Projects should be designed at suitable sites to trap and sort spawning gravel in order to expand redd site distribution in the stream.

9) There are several log debris accumulations present on Wild Hog Creek that are retaining large quantities of fine sediment. The modification of these debris accumulations is

desirable, but must be done carefully, over time, to avoid excessive sediment loading in downstream reaches.

10) There are at least two sections where the stream is being impacted from cattle trampling the riparian zone and defecating in the water. Alternatives should be explored with the grazier and developed if possible.

11) Due to the high gradient of the stream, access for migrating salmonids is an ongoing potential problem. Good water temperature and flow regimes exist in the stream and it offers good conditions for rearing fish. Fish passage should be monitored and improved where possible.

PROBLEM SITES AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and taken from the beginning of the survey reach.

Position (ft):	Comments:
0	Start of survey at confluence with Carson Creek.
9	Tadpoles and young-of-the-year (YOY) salmonids observed.
22	Tadpoles observed.
98	Tadpole and newts observed.
175	Right bank sliding right before next pool. Road is 60' up from right bank.
216	Tail crest is pea gravel.
242	Large debris accumulation (LDA) measures 45’ long x 20’ wide x 10’ high. Two large redwood trees and a rootwad are sloping over creek. The LDA is not a barrier to fish, but it is retaining gravel.
334	Road 30' from right bank.
378	Road 10' from right bank.
421	A log held with fence posts starts running parallel to the creek, acting as a crib for the road on the right bank.
485	Log is cabled in at upstream end to hold road together (crib). Log continues between road and wetted channel.
511	Humboldt crossing. The bottom culvert has a 4' diameter, the top culvert has a

	3' diameter. Large boulder in bottom culvert at upstream end. Pool has rust and oily film on top of water.
526	Depth of water is 0.3 in culvert (but rust line is at 1.3'). Boulder in culvert is keeping culvert up. Culvert crushed on top of boulder. Landowners said that road goes out frequently at this crossing. Picture on field notes.
930	Lots of tadpoles observed.
974	Tadpoles and algae observed. 4" metal pipe.
1042	Tadpoles and pacific giant salamanders observed.
1155	Tail crest is pea gravel. Small debris accumulation (SDA) at end of unit, mostly on left bank side, measures 15' long x 3' high x 7' wide.15'avg.l * 3'h * 7' w. 3' high plunge over the SDA. Gravel has accumulated behind SDA. Flow is very low in next unit.
1248	Tadpoles and newt observed.
1552	LDA measures 20' long x 4' high x 15' wide. There is a 3' high plunge over the LDA. It is retaining gravel.
1609	Tadpoles observed.
1696	Tadpoles observed. Oily sheen on water surface.
1832	Evidence of wild pigs, deer carcass, and tadpoles observed. Tributary enters on the right bank. There is a water pipe going up the tributary.
2141	Pacific giant salamander and tadpoles observed.
2227	Newts and frogs observed.
2323	Tadpoles observed.
2475	Dry tributary on the left bank.